

SEQUENCE LISTING

<110> Hastings, et al

<120> Human CCN-like Growth Factor

<130> PF185D1C2

<150> US 09/853,625

<151> 2001-05-14

<150> US 09/053,587

<151> 1998-04-01

<150> US 08/468,847

<151> 1995-06-06

<160> 19

<170> PatentIn version 3.2

<210> 1

<211> 900

<212> DNA

<213> Homo sapiens

<400> 1

cgccaaacct ctatggatat ataaaggaa gcttgaggag gaatttcaca gttacagtgc 60

agaagcagag gcaaaagaat taaccagctc ttcagtcaag caaatcctct actcaccatg 120

cttcctcctg ccattcattt ctatccctt ccccttgcac gcatcctaatt gaaaagctgt 180

ttggctttta aaaaatgatgc cacagaaatc ctttattcac atgtggttaa acctgttcca 240

gcacacccca gcagcaacag cacgttgaat caagccagaa atggaggcag gcatttcagt 300

aacactggac tggatcgaa cactcggtt caagtgggtt gccgggaact gcgttccacc 360

aaatacatct ctgatggcca gtgcaccagc atcagccctc tgaaggagct ggtgtgtgct 420

ggcgagtgct tgccccctgcc agtgcctccct aactggattt gaggaggcta tggaaacaaag 480

tactggagca ggaggagctc ccaggagtgg cgggtgtgtca atgacaaaac ccgtacccag 540

agaatccagc tgcagtgccca agatggcagc acacgcacct acaaaatcac agtagtcact 600

gcctgcaagt gcaagaggtt cacccggcag cacaacgagt ccagtcacaa ctttgagagc 660

atgtcacctg ccaagccagt ccagcatcac agagagcggaa aaagagccag caaatccagc 720

aagcacagca tgagtttagaa ctcagactcc cataactaga cttactagta accatctgct 780

ttacagattt gattgcttgg aagactcaag cctgccactg ctgtttctc acttgaaagt 840

atatgcttgc tgctttgatc aaaccagca agctgtctta agtatcagga ctttcttgg 900

<210> 2

<211> 206

<212> PRT  
<213> Homo sapiens

<400> 2

Met Leu Pro Pro Ala Ile His Phe Tyr Leu Leu Pro Leu Ala Cys Ile  
1 5 10 15

Leu Met Lys Ser Cys Leu Ala Phe Lys Asn Asp Ala Thr Glu Ile Leu  
20 25 30

Tyr Ser His Val Val Lys Pro Val Pro Ala His Pro Ser Ser Asn Ser  
35 40 45

Thr Leu Asn Gln Ala Arg Asn Gly Gly Arg His Phe Ser Asn Thr Gly  
50 55 60

Leu Asp Arg Asn Thr Arg Val Gln Val Gly Cys Arg Glu Leu Arg Ser  
65 70 75 80

Thr Lys Tyr Ile Ser Asp Gly Gln Cys Thr Ser Ile Ser Pro Leu Lys  
85 90 95

Glu Leu Val Cys Ala Gly Glu Cys Leu Pro Leu Pro Val Leu Pro Asn  
100 105 110

Trp Ile Gly Gly Tyr Gly Thr Lys Tyr Trp Ser Arg Arg Ser Ser  
115 120 125

Gln Glu Trp Arg Cys Val Asn Asp Lys Thr Arg Thr Gln Arg Ile Gln  
130 135 140

Leu Gln Cys Gln Asp Gly Ser Thr Arg Thr Tyr Lys Ile Thr Val Val  
145 150 155 160

Thr Ala Cys Lys Cys Lys Arg Tyr Thr Arg Gln His Asn Glu Ser Ser  
165 170 175

His Asn Phe Glu Ser Met Ser Pro Ala Lys Pro Val Gln His His Arg  
180 185 190

Glu Arg Lys Arg Ala Ser Lys Ser Ser Lys His Ser Met Ser  
195 200 205

<210> 3  
<211> 33  
<212> DNA

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<213> Artificial sequence

<220>
<223> Primer

<400> 3
cactgcaagc ttataaaaaa tgatgccaca gaa  33

<210> 4
<211> 33
<212> DNA
<213> Artificial sequence

<220>
<223> Primer

<400> 4
catgcctcta gatatggag tctgagttct aac  33

<210> 5
<211> 40
<212> DNA
<213> Artificial sequence

<220>
<223> Primer

<400> 5
cattcgcgga tccbccatca tgcttcctcc tgccattcat 40

<210> 6
<211> 34
<212> DNA
<213> Artificial sequence

<220>
<223> Primer

<400> 6
cactgcctct agatatggga gtctgagttc taac  34

<210> 7
<211> 39
<212> DNA
<213> Artificial sequence

<220>
<223> Primer

<400> 7
catcgcggat ccgccatcat gcttcctcct gccattcat 39

<210> 8
<211> 30
<212> DNA
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<213> Artificial sequence

<220>
<223> Primer

<400> 8
tgcggatcct atgggagtct gagttctaac 30

<210> 9
<211> 17
<212> DNA
<213> Artificial sequence

<220>
<223> Primer

<400> 9
gtaaaacgac ggccagt 17

<210> 10
<211> 19
<212> DNA
<213> Artificial sequence

<220>
<223> Primer

<400> 10
ggaaacagct atgaccatg 19

<210> 11
<211> 379
<212> PRT
<213> Mus musculus

<400> 11

Met Ser Ser Ser Thr Phe Arg Thr Leu Ala Val Ala Val Thr Leu Leu
1 5 10 15

His Leu Thr Arg Leu Ala Leu Ser Thr Cys Pro Ala Ala Cys His Cys
20 25 30

Pro Leu Glu Ala Pro Lys Cys Ala Pro Gly Val Gly Leu Val Arg Asp
35 40 45

Gly Cys Gly Cys Cys Lys Val Cys Ala Lys Gln Leu Asn Glu Asp Cys
50 55 60

Ser Lys Thr Gln Pro Cys Asp His Thr Lys Gly Leu Glu Cys Asn Phe
65 70 75 80

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Gly	Ala	Ser	Ser	Thr	Ala	Leu	Lys	Gly	Ile	Cys	Arg	Ala	Gln	Ser	Glu
					85					90					95
Gly	Arg	Pro	Cys	Glu	Tyr	Asn	Ser	Arg	Ile	Tyr	Gln	Asn	Gly	Glu	Ser
					100					105					110
Phe	Gln	Pro	Asn	Cys	Lys	His	Gln	Cys	Thr	Cys	Ile	Asp	Gly	Ala	Val
					115					120					125
Gly	Cys	Ile	Pro	Leu	Cys	Pro	Gln	Glu	Leu	Ser	Leu	Pro	Asn	Leu	Gly
					130					135					140
Cys	Pro	Asn	Pro	Arg	Leu	Val	Lys	Val	Ser	Gly	Gln	Cys	Cys	Glu	Glu
					145					150					160
Trp	Val	Cys	Asp	Glu	Asp	Ser	Ile	Lys	Asp	Ser	Leu	Asp	Asp	Gln	Asp
					165					170					175
Asp	Leu	Leu	Gly	Leu	Asp	Ala	Ser	Glu	Val	Glu	Leu	Thr	Arg	Asn	Asn
					180					185					190
Glu	Leu	Ile	Ala	Ile	Gly	Lys	Gly	Ser	Ser	Leu	Lys	Arg	Leu	Pro	Val
					195					200					205
Phe	Gly	Thr	Glu	Pro	Arg	Val	Leu	Phe	Asn	Pro	Leu	His	Ala	His	Gly
					210					215					220
Gln	Lys	Cys	Ile	Val	Gln	Thr	Thr	Ser	Trp	Ser	Gln	Cys	Ser	Lys	Ser
					225					230					240
Cys	Gly	Thr	Gly	Ile	Ser	Thr	Arg	Val	Thr	Asn	Asp	Asn	Pro	Glu	Cys
					245					250					255
Arg	Leu	Val	Lys	Glu	Thr	Arg	Ile	Cys	Glu	Val	Arg	Pro	Cys	Gly	Gln
					260					265					270
Pro	Val	Tyr	Ser	Ser	Leu	Lys	Lys	Gly	Lys	Lys	Cys	Ser	Lys	Thr	Lys
					275					280					285
Lys	Ser	Pro	Glu	Pro	Val	Arg	Phe	Thr	Tyr	Ala	Gly	Cys	Ser	Ser	Val
					290					295					300
Lys	Lys	Tyr	Arg	Pro	Lys	Tyr	Cys	Gly	Ser	Cys	Val	Asp	Gly	Arg	Cys
					305					310					320

Cys Thr Pro Leu Gln Thr Arg Thr Val Lys Met Arg Phe Arg Cys Glu  
325 330 335

Asp Gly Glu Met Phe Ser Lys Asn Val Met Met Ile Gln Ser Cys Lys  
340 345 350

Cys Asn Tyr Asn Cys Pro His Pro Asn Glu Ala Ser Phe Arg Leu Tyr  
355 360 365

Ser Leu Phe Asn Asp Ile His Lys Phe Arg Asp  
370 375

<210> 12  
<211> 373  
<212> PRT  
<213> Homo sapiens

<400> 12

Met Ser Ser Arg Ile Val Arg Glu Leu Ala Leu Val Val Thr Leu Leu  
1 5 10 15

His Leu Thr Arg Val Gly Leu Ser Thr Cys Pro Ala Asp Cys His Cys  
20 25 30

Pro Gly Leu Glu Cys Asn Phe Gly Ala Ser Ser Thr Ala Leu Lys Gly  
35 40 45

Ile Cys Arg Ala Gln Ser Glu Gly Arg Pro Cys Glu Tyr Asn Ser Arg  
50 55 60

Ile Tyr Gln Asn Gly Glu Ser Phe Gln Pro Asn Cys Lys His Gln Cys  
65 70 75 80

Thr Cys Ile Leu Glu Ala Pro Lys Cys Ala Pro Gly Val Gly Leu Arg  
85 90 95

Asp Gly Cys Gly Cys Cys Lys Val Cys Ala Lys Gln Leu Asn Glu Asp  
100 105 110

Cys Arg Lys Thr Gln Pro Cys Asp His Thr Lys Gly Trp Arg Arg Gly  
115 120 125

Ala Cys Ile Pro Leu Cys Pro Gln Glu Leu Ser Leu Pro Asn Leu Gly  
130 135 140

Cys Pro Asn Pro Arg Leu Val Lys Val Thr Gly Gln Cys Cys Glu Glu

145 150 155 160

Trp Val Cys Asp Glu Asp Ser Ile Lys Asp Pro Met Glu Asp Gln Asp  
165 170 175

Gly Leu Leu Gly Lys Gly Leu Gly Phe Asp Ala Ser Glu Val Glu Leu  
180 185 190

Thr Arg Asn Asn Glu Leu Ile Ala Val Gly Lys Gly Ser Ser Leu Lys  
195 200 205

Arg Leu Pro Val Phe Gly Met Glu Pro Arg Ile Leu Tyr Asn Pro Leu  
210 215 220

Gln Gly Gln Lys Cys Thr Lys Lys Ser Pro Glu Pro Val Arg Phe Thr  
225 230 235 240

Tyr Ala Gly Cys Leu Ser Val Lys Lys Tyr Arg Pro Lys Tyr Cys Gly  
245 250 255

Ser Cys Val Asp Gly Arg Cys Cys Thr Pro Gln Leu Thr Arg Thr Val  
260 265 270

Lys Met Arg Phe Pro Cys Glu Ile Val Gln Thr Thr Ser Trp Ser Gln  
275 280 285

Cys Ser Lys Thr Cys Gly Thr Gly Ile Ser Thr Arg Val Thr Asn Asp  
290 295 300

Asn Pro Glu Cys Arg Leu Val Lys Glu Thr Arg Ile Cys Glu Val Arg  
305 310 315 320

Pro Cys Gly Gln Pro Val Tyr Ser Ser Leu Lys Lys Gly Lys Lys Cys  
325 330 335

Ser Lys Asp Gly Glu Thr Phe Ser Lys Asn Val Met Met Ile Gln Ser  
340 345 350

Ser Lys Cys Asn Tyr Asn Cys Pro His Ala Asn Glu Ala Ala Phe Pro  
355 360 365

Phe Tyr Arg Leu Phe  
370

<211> 375  
<212> PRT  
<213> Gallus gallus

<400> 13

Met Gly Ser Ala Gly Ala Arg Pro Ala Leu Ala Ala Ala Leu Leu Cys  
1 5 10 15

Leu Ala Arg Leu Ala Leu Gly Ser Pro Cys Pro Ala Val Cys Gln Cys  
20 25 30

Pro Ala Ala Ala Pro Gln Cys Ala Pro Gly Val Gly Leu Val Pro Asp  
35 40 45

Gly Cys Gly Cys Cys Lys Val Cys Ala Lys Gln Leu Asn Glu Asp Cys  
50 55 60

Ser Arg Thr Gln Pro Cys Asp His Thr Lys Gly Leu Glu Cys Asn Phe  
65 70 75 80

Gly Ala Ser Pro Ala Ala Thr Asn Gly Ile Cys Arg Ala Gln Ser Glu  
85 90 95

Gly Arg Pro Cys Glu Tyr Asn Ser Lys Ile Tyr Gln Asn Gly Glu Ser  
100 105 110

Phe Gln Pro Asn Cys Lys His Gln Cys Thr Cys Ile Asp Gly Ala Val  
115 120 125

Gly Cys Ile Pro Leu Cys Pro Gln Glu Leu Ser Leu Pro Asn Leu Gly  
130 135 140

Cys Pro Ser Pro Arg Leu Val Lys Val Pro Gly Gln Cys Cys Glu Glu  
145 150 155 160

Trp Val Cys Asp Glu Ser Lys Asp Ala Leu Glu Glu Leu Glu Gly Phe  
165 170 175

Phe Ser Lys Glu Phe Gly Leu Asp Ala Ser Glu Gly Glu Leu Thr Arg  
180 185 190

Asn Asn Glu Leu Ile Ala Ile Val Lys Gly Gly Leu Lys Met Leu Pro  
195 200 205

Val Phe Gly Ser Glu Pro Gln Ser Arg Ala Phe Glu Asn Pro Lys Cys  
210 215 220

Ile Val Gln Thr Thr Ser Trp Ser Gln Cys Ser Lys Thr Cys Gly Thr  
225 230 235 240

Gly Ile Ser Thr Arg Val Thr Asn Asp Asn Pro Asp Cys Lys Leu Ile  
245 250 255

Lys Glu Thr Arg Ile Cys Glu Val Arg Pro Cys Gly Gln Pro Ser Tyr  
260 265 270

Ala Ser Leu Lys Lys Gly Lys Lys Cys Thr Lys Thr Lys Lys Ser Pro  
275 280 285

Ser Pro Val Arg Phe Thr Tyr Ala Gly Cys Ser Ser Val Lys Lys Tyr  
290 295 300

Arg Pro Lys Tyr Cys Gly Ser Cys Val Asp Gly Arg Cys Cys Thr Pro  
305 310 315 320

Gln Gln Thr Arg Thr Val Lys Ile Arg Phe Arg Cys Asp Asp Gly Glu  
325 330 335

Thr Phe Thr Lys Ser Val Met Met Ile Gln Ser Cys Arg Cys Asn Tyr  
340 345 350

Asn Cys Pro His Ala Asn Glu Ala Tyr Pro Phe Tyr Arg Leu Val Asn  
355 360 365

Asp Ile His Lys Phe Arg Asp  
370 375

<210> 14  
<211> 349  
<212> PRT  
<213> Homo sapiens

<400> 14

Met Thr Ala Ala Ser Met Gly Pro Val Arg Val Ala Phe Val Val Leu  
1 5 10 15

Leu Ala Leu Cys Ser Arg Pro Ala Val Gly Gln Asn Cys Ser Gly Pro  
20 25 30

Cys Arg Cys Pro Asp Glu Pro Ala Pro Arg Cys Pro Ala Gly Val Ser  
35 40 45

Leu Val Leu Asp Gly Cys Gly Cys Cys Arg Val Cys Ala Lys Gln Leu  
50 55 60

Gly Glu Leu Cys Thr Glu Arg Asp Pro Cys Asp Pro His Lys Gly Leu  
65 70 75 80

Phe Cys Asp Phe Gly Ser Pro Ala Asn Arg Lys Ile Gly Val Cys Thr  
85 90 95

Ala Lys Asp Gly Ala Pro Cys Ile Phe Gly Gly Thr Val Tyr Arg Ser  
100 105 110

Gly Glu Ser Phe Gln Ser Ser Cys Lys Tyr Gln Cys Thr Cys Leu Asp  
115 120 125

Gly Ala Val Gly Cys Met Pro Leu Cys Ser Met Asp Val Arg Leu Pro  
130 135 140

Ser Pro Asp Cys Pro Phe Pro Arg Arg Val Lys Leu Pro Gly Lys Cys  
145 150 155 160

Cys Glu Glu Trp Val Cys Asp Glu Pro Lys Asp Gln Thr Val Val Gly  
165 170 175

Pro Ala Leu Ala Ala Tyr Arg Leu Glu Asp Thr Phe Gly Pro Asp Pro  
180 185 190

Thr Met Ile Arg Ala Asn Cys Leu Val Gln Thr Thr Glu Trp Ser Ala  
195 200 205

Cys Ser Lys Thr Cys Gly Met Gly Ile Ser Thr Arg Val Thr Asn Asp  
210 215 220

Asn Ala Ser Cys Arg Leu Glu Lys Gln Ser Arg Leu Cys Met Val Arg  
225 230 235 240

Pro Cys Glu Ala Asp Leu Glu Glu Asn Ile Lys Lys Gly Lys Lys Cys  
245 250 255

Ile Arg Thr Pro Lys Ile Ser Lys Pro Ile Lys Phe Glu Leu Ser Gly  
260 265 270

Cys Thr Ser Met Lys Thr Tyr Arg Ala Lys Phe Cys Gly Val Cys Thr  
275 280 285

Asp Gly Arg Cys Cys Thr Pro His Arg Thr Thr Thr Leu Pro Val Glu  
290 295 300

Phe Lys Cys Pro Asp Gly Glu Val Met Lys Lys Asn Met Met Phe Ile  
305 310 315 320

Lys Thr Cys Ala Cys His Tyr Asn Cys Pro Gly Asp Asn Asp Ile Phe  
325 330 335

Glu Ser Leu Tyr Tyr Arg Lys Met Tyr Gly Asp Met Ala  
340 345

<210> 15  
<211> 348  
<212> PRT  
<213> Mus musculus

<400> 15

Met Leu Ala Ser Val Ala Gly Pro Ile Ser Leu Ala Leu Val Leu Leu  
1 5 10 15

Ala Leu Cys Thr Arg Pro Ala Thr Gly Gln Asp Cys Ser Ala Gln Cys  
20 25 30

Gln Cys Ala Ala Glu Ala Ala Pro His Cys Pro Ala Gly Val Ser Leu  
35 40 45

Val Leu Asp Gly Cys Gly Cys Cys Arg Val Cys Ala Lys Gln Leu Gly  
50 55 60

Glu Leu Cys Thr Glu Arg Asp Pro Cys Asp Pro His Lys Gly Leu Phe  
65 70 75 80

Cys Asp Phe Gly Ser Pro Ala Asn Arg Lys Ile Gly Val Cys Thr Ala  
85 90 95

Lys Asp Gly Ala Pro Cys Val Phe Gly Gly Ser Val Tyr Arg Ser Gly  
100 105 110

Glu Ser Phe Gln Ser Ser Cys Lys Tyr Gln Cys Thr Cys Leu Asp Gly  
115 120 125

Ala Val Gly Cys Val Pro Leu Cys Ser Met Asp Val Arg Leu Pro Ser  
130 135 140

Pro Asp Cys Pro Phe Pro Arg Arg Val Lys Leu Pro Gly Lys Cys Cys  
145 150 155 160

Glu Glu Trp Val Cys Asp Glu Pro Lys Asp Arg Thr Ala Val Gly Pro  
165 170 175

Ala Leu Ala Ala Tyr Arg Leu Glu Asp Thr Phe Gly Pro Asp Pro Thr  
180 185 190

Met Met Arg Ala Asn Cys Leu Val Gln Thr Thr Glu Trp Ser Ala Cys  
195 200 205

Ser Lys Thr Cys Gly Met Gly Ile Ser Thr Arg Val Thr Asn Asp Asn  
210 215 220

Thr Phe Cys Arg Leu Glu Lys Gln Ser Arg Leu Cys Met Val Arg Pro  
225 230 235 240

Cys Glu Ala Asp Leu Glu Glu Asn Ile Lys Lys Gly Lys Lys Cys Ile  
245 250 255

Arg Thr Pro Lys Ile Ala Lys Pro Val Lys Phe Glu Leu Ser Gly Cys  
260 265 270

Thr Ser Val Lys Thr Tyr Arg Ala Lys Phe Cys Gly Val Cys Thr Asp  
275 280 285

Gly Arg Cys Cys Thr Pro His Arg Thr Thr Thr Leu Pro Val Glu Phe  
290 295 300

Lys Cys Pro Asp Gly Glu Ile Met Lys Lys Asn Met Met Phe Ile Lys  
305 310 315 320

Thr Cys Ala Cys His Tyr Asn Cys Pro Gly Asp Asn Asp Ile Phe Glu  
325 330 335

Ser Leu Tyr Tyr Arg Lys Met Tyr Gly Asp Met Ala  
340 345

<210> 16  
<211> 351  
<212> PRT  
<213> Gallus gallus

<400> 16

Met Glu Thr Gly Gly Gln Gly Leu Pro Val Leu Leu Leu Leu

1

5

10

15

Leu Leu Leu Arg Pro Cys Glu Val Ser Gly Arg Glu Ala Ala Cys Pro  
20 25 30

Arg Pro Cys Gly Gly Arg Cys Pro Ala Glu Pro Pro Arg Cys Ala Pro  
35 40 45

Gly Val Pro Ala Val Leu Asp Gly Cys Gly Cys Cys Leu Val Cys Ala  
50 55 60

Arg Gln Arg Gly Glu Ser Cys Ser Pro Leu Leu Pro Cys Asp Glu Ser  
65 70 75 80

Gly Gly Leu Tyr Cys Asp Arg Gly Pro Glu Asp Gly Gly Ala Gly  
85 90 95

Ile Cys Met Val Leu Glu Gly Asp Asn Cys Val Phe Asp Gly Met Ile  
100 105 110

Tyr Arg Asn Gly Glu Thr Phe Gln Pro Ser Cys Lys Tyr Gln Cys Thr  
115 120 125

Cys Arg Asp Gly Gln Ile Gly Cys Leu Pro Arg Cys Asn Leu Gly Leu  
130 135 140

Leu Leu Pro Gly Pro Asp Cys Pro Phe Pro Arg Lys Ile Glu Val Pro  
145 150 155 160

Gly Glu Cys Cys Glu Lys Trp Val Cys Asp Pro Arg Asp Glu Val Leu  
165 170 175

Leu Gly Gly Phe Ala Met Ala Ala Tyr Arg Gln Glu Ala Thr Leu Gly  
180 185 190

Ile Asp Val Ser Asp Ser Ser Ala Asn Cys Ile Glu Gln Thr Thr Glu  
195 200 205

Trp Ser Ala Cys Ser Lys Ser Cys Gly Met Gly Phe Ser Thr Arg Val  
210 215 220

Thr Asn Arg Asn Gln Gln Cys Glu Met Val Lys Gln Thr Arg Leu Cys  
225 230 235 240

Met Met Arg Pro Cys Glu Asn Glu Glu Pro Ser Asp Lys Lys Gly Lys

245

250

255

Lys Cys Ile Gln Thr Lys Lys Ser Met Lys Ala Val Arg Phe Glu Tyr  
260 265 270

Lys Asn Cys Thr Ser Val Gln Thr Tyr Lys Pro Arg Tyr Cys Gly Leu  
275 280 285

Cys Asn Asp Gly Arg Cys Cys Thr Pro His Asn Thr Lys Thr Ile Gln  
290 295 300

Val Glu Phe Arg Cys Pro Gln Gly Lys Phe Leu Lys Lys Pro Met Met  
305 310 315 320

Leu Ile Asn Thr Cys Val Cys His Gly Asn Cys Pro Gln Ser Asn Asn  
325 330 335

Ala Phe Phe Gln Pro Leu Asp Pro Met Ser Ser Glu Ala Lys Ile  
340 345 350

<210> 17

<211> 357

<212> PRT

<213> Homo sapiens

<400> 17

Met Gln Ser Val Gln Ser Thr Ser Phe Cys Leu Arg Lys Gln Cys Leu  
1 5 10 15

Cys Leu Thr Phe Leu Leu Leu His Leu Leu Gly Gln Val Ala Ala Thr  
20 25 30

Gln Arg Cys Pro Pro Gln Cys Pro Gly Arg Gly Leu Tyr Cys Asp Arg  
35 40 45

Ser Ala Asp Pro Ser Asn Gln Thr Gly Ile Cys Thr Ala Val Glu Gly  
50 55 60

Asp Asn Cys Val Phe Asp Gly Cys Ile Tyr Arg Ser Gly Glu Lys Phe  
65 70 75 80

Gln Pro Ser Cys Lys Phe Gln Cys Thr Cys Arg Cys Pro Ala Thr Pro  
85 90 95

Pro Thr Cys Ala Pro Gly Val Arg Ala Val Leu Asp Gly Cys Ser Cys  
100 105 110

Cys Leu Val Cys Ala Arg Gln Arg Gly Glu Ser Cys Ser Asp Leu Glu  
115 120 125

Pro Cys Asp Glu Ser Ser Asp Gly Gln Ile Gly Cys Val Pro Arg Cys  
130 135 140

Gln Leu Asp Val Leu Leu Pro Glu Pro Asn Cys Pro Ala Pro Arg Lys  
145 150 155 160

Val Glu Val Pro Gly Glu Cys Cys Glu Lys Trp Ile Cys Gly Pro Asp  
165 170 175

Glu Glu Asp Ser Leu Gly Gly Leu Thr Leu Ala Ala Tyr Arg Pro Glu  
180 185 190

Ala Thr Leu Gly Val Glu Val Ser Asp Ser Ser Val Asn Cys Thr Lys  
195 200 205

Lys Ser Leu Lys Ala Ile His Leu Gln Phe Lys Asn Cys Thr Ser Leu  
210 215 220

His Thr Tyr Lys Pro Arg Phe Cys Gly Val Cys Ser Asp Gly Arg Cys  
225 230 235 240

Cys Thr Pro His Asn Thr Lys Thr Ile Gln Ala Glu Phe Gln Cys Ser  
245 250 255

Ile Glu Gln Thr Thr Glu Trp Thr Ala Cys Ser Lys Ser Cys Gly Met  
260 265 270

Gly Phe Ser Thr Arg Val Thr Asn Arg Asn Arg Gln Cys Glu Met Leu  
275 280 285

Lys Gln Thr Arg Leu Cys Met Val Arg Pro Cys Glu Gln Glu Pro Glu  
290 295 300

Gln Pro Thr Asp Lys Lys Gly Lys Lys Cys Leu Arg Pro Gly Gln Ile  
305 310 315 320

Val Lys Lys Pro Val Met Val Ile Gly Thr Cys Thr Cys His Thr Asn  
325 330 335

Cys Pro Lys Asn Asn Glu Ala Phe Leu Gln Glu Leu Glu Leu Lys Thr  
340 345 350

Thr Arg Gly Lys Met  
355

<210> 18  
<211> 184  
<212> PRT  
<213> Homo sapiens

<400> 18

Met Lys Ser Val Leu Leu Leu Thr Thr Leu Leu Val Pro Ala His Leu  
1 5 10 15

Val Ala Ala Trp Ser Asn Asn Tyr Ala Val Asp Cys Pro Gln His Cys  
20 25 30

Asp Ser Ser Gly Glu Asp Pro Phe Gly Glu Glu Phe Gly Ile Cys Lys  
35 40 45

Asp Cys Pro Tyr Gly Thr Phe Gly Met Asp Cys Arg Glu Thr Cys Asn  
50 55 60

Cys Gln Ser Gly Ile Cys Asp Arg Gly Thr Gly Lys Glu Cys Lys Ser  
65 70 75 80

Ser Pro Arg Cys Lys Arg Thr Val Leu Asp Asp Cys Gly Cys Cys Arg  
85 90 95

Val Cys Ala Ala Gly Arg Gly Glu Thr Cys Tyr Arg Thr Val Ser Gly  
100 105 110

Met Asp Gly Met Lys Cys Gly Pro Gly Leu Arg Cys Gln Pro Ser Asn  
115 120 125

Cys Leu Lys Phe Pro Phe Phe Gln Tyr Ser Val Thr Lys Ser Ser Asn  
130 135 140

Arg Phe Val Ser Leu Thr Glu His Asp Met Ala Ser Gly Asp Gly Asn  
145 150 155 160

Ile Val Arg Glu Glu Val Val Lys Glu Asn Ala Ala Gly Ser Pro Val  
165 170 175

Met Arg Lys Trp Leu Asn Pro Arg  
180

<210> 19  
<211> 291  
<212> PRT  
<213> Homo sapiens

<400> 19

Met Gln Arg Ala Arg Pro Thr Leu Trp Ala Ala Ala Leu Thr Leu Leu  
1 5 10 15

Val Leu Leu Arg Gly Pro Pro Val Ala Arg Ala Gly Ala Ser Ser Gly  
20 25 30

Gly Leu Gly Pro Val Val Arg Cys Glu Pro Cys Asp Ala Arg Ala Leu  
35 40 45

Ala Gln Cys Ala Pro Pro Pro Ala Val Cys Ala Glu Leu Val Arg Glu  
50 55 60

Pro Gly Cys Gly Cys Cys Leu Thr Cys Ala Leu Ser Glu Gly Gln Pro  
65 70 75 80

Cys Gly Ile Tyr Thr Glu Arg Cys Gly Ser Gly Leu Arg Cys Gln Pro  
85 90 95

Ser Pro Asp Glu Ala Arg Pro Leu Gln Ala Leu Leu Asp Gly Arg Gly  
100 105 110

Leu Cys Val Asn Ala Ser Ala Val Ser Arg Leu Arg Ala Tyr Leu Leu  
115 120 125

Pro Ala Pro Pro Ala Pro Gly Asn Ala Ser Glu Ser Glu Glu Asp Arg  
130 135 140

Ser Ala Gly Ser Val Glu Ser Pro Ser Val Ser Ser Thr His Arg Val  
145 150 155 160

Ser Asp Pro Lys Phe His Pro Leu His Ser Lys Ile Ile Ile Ile Lys  
165 170 175

Lys Gly His Ala Lys Asp Ser Gln Arg Tyr Lys Val Asp Tyr Glu Ser  
180 185 190

Gln Ser Thr Asp Thr Gln Asn Phe Ser Ser Glu Ser Lys Arg Glu Thr  
195 200 205

Glu Tyr Gly Pro Cys Arg Arg Glu Met Glu Asp Thr Leu Asn His Leu  
210 215 220

Lys Phe Leu Asn Val Leu Ser Pro Arg Gly Val His Ile Pro Asn Cys  
225 230 235 240

Asp Lys Lys Gly Phe Tyr Lys Lys Gln Cys Arg Pro Ser Lys Gly  
245 250 255

Arg Lys Arg Gly Phe Cys Trp Cys Val Asp Lys Tyr Gly Gln Pro Leu  
260 265 270

Pro Gly Tyr Thr Thr Lys Gly Lys Glu Asp Val His Cys Tyr Ser Met  
275 280 285

Gln Ser Lys  
290